

The Facsimile (FAX) Transceiver, Computer Equipment, DVD player, VCR and CCTV monitor will not be measured for payment but the cost will be incidental to the Contract lump sum bid price for "Engineer's Office", and shall include all necessary installation, maintenance, repairs, paper, and telephone lines. At the conclusion of the Contract, the FAX machine, Computer Equipment, DVD player, VCR and CCTV monitor and all accessories shall remain the property of the Contractor".

Basis of Payment

Supplement Section 13 22 00 Part 4 with the following:

"Engineer's Office will be measured and paid for at the Contract lump sum bid price. All costs for the construction and stabilization of the parking area will not be measured for payment, but the cost thereof shall be included in the lump sum bid price for "Engineer Office".

**ITEM 201 - TEST PIT EXCAVATION (Section 31 23 16.05)**

**ITEM 202 – CONTINGENT TRENCH BACKFILL (Section 31 23 33)**

**ITEM 203 – MISCELLANEOUS PARK IMPROVEMENTS**

Description

This item includes the removal and disposal of the existing baseball backstops, players benches, and 3-foot chain link fence along Wyman Park Drive, furnishing and installing baseball backstops, players benches, 3-foot chain link fence along Wyman Park Drive and baseball infield mix and disking disturbed areas within the limits of disturbance in the park area(s) as indicated on the Contract Drawings. This work also includes replacing existing miscellaneous clay pots and fencing in kind and furnishing supplemental herbaceous and woody plants and spring bulbs at the traffic triangle located at Gilman Terrace and 33<sup>rd</sup> Street.

Materials

1. Baseball Backstop
  - A. Chain Link Fence Fabric
    - 1) PVC coating, 7 mil (0.18 mm) to 15 mil (0.38mm) thickness, thermally fused to metallic coated steel core wire: ASTM F 668 Class 2b. Core wire tensile strength 75,000 psi (517 MPa).

- 2) Roof fabric: 2" (50 mm) diamond mesh of 9 gauge core wire with a diameter of 0.148" (3.76 mm).
- 3) Side Fabric: 2" (50 mm) diamond mesh of 6 gauge core wire with a diameter of 0.192" (4.88 mm) and a breakload of 2170 lbs (9650 N). Color shall be black, ASTM F 934.
- 4) Selvage of fabric knuckled at top and knuckled at bottom.

**B. Steel Fence Framing**

- 1) Steel pipe - Type I: ASTM F 1083, standard weight schedule 40; minimum yield strength of 25,000 psi (170 MPa); sizes as indicated. Hot-dipped galvanized with minimum average 1.8 oz/ft<sup>2</sup> (550 g/m<sup>2</sup>) of coated surface area.
- 2) PVC-Coated finish: In accordance with ASTM F1043, apply supplemental color coating of 10-15 mils (2.54 - 0.38 mm ) of thermally fused PVC in color.
- 3) End and Corner Post: 4" od (101.6 mm) 9.11 lbs per/ft (13.6 kg/m). Line (intermediate) Post: 4" od (101.6 mm) 9.11 lbs per/ft (13.6 kg/m).
- 4) Horizontal rails and roof members 1.9" od (48 mm) 2.72 lbs per/ft (3.65 kg/m)

**C. Vinyl Coated Accessories**

- 1) Chain link fence accessories: ASTM F 626, Provide items required to complete fence system. Galvanize each ferrous metal item in accordance with ASTM A 153 and finished to match framing.
- 2) Post caps: Formed steel weathertight closure cap for tubular posts. Provide one cap for each post.
- 3) Top rail and brace ends: Pressed steel per ASTM F626, for connection of rail and brace to posts.
- 4) Top rail sleeves: (7" (178 mm) expansion sleeve with spring, allowing for expansion and contraction of top rail.
- 5) Wire ties and clips: 10 gauge [0.135" (3.43 mm)] galvanized steel wire for attachment of fabric to line posts. Double wrap 13 gauge [0.092" (2.324

mm)] for rails and braces. Hog ring ties of 12-1/2 gauge [0.0985" (2.502 mm)] for attachment of fabric to tension wire.

- 6) Brace and tension (stretcher bar) bands: Pressed steel.
  - 7) Tension (stretcher) bars: One piece lengths equal to 2" (50 mm) less than full height of fabric with a minimum cross-section of 3/16" x 3/4" (4.76 mm x 19 mm) or equivalent fiberglass rod. Provide tension (stretcher) bars where chain link fabric meets terminal posts.
  - 8) Nuts and bolts shall be galvanized.
- D. Concrete shall be mix No. 3 conforming to Section 03 30 00 of the Standard Specifications.

**2. Player Benches**

- A. Model PTS 15 as manufactured by Outdoor Aluminum, Geneva, AL 36340 or approved equal.
- B. Finished color shall be anodized (20 total).

**3. Chain Link Fencing**

- A. Fabric shall be thermally fused vinyl coated steel chain link fabric furnished in accordance with ASTM F-668, Type 2B. Bonding of vinyl coating shall conform to DPW specification Section 20.25-5. The core wire shall be #9 gauge with minimum breaking strength of 1,290 pounds. The steel core wire shall be galvanized in accordance with ASTM A-641-71A. Fabric shall be two inches (2") mesh and shall be knuckled at top and bottom. The color shall be black.
- B. Framing - round steel pipe shall be hot - dipped galvanized produced to conform with ASTM F1083 (A-120) standard weight schedule 40. All steel parts shall be hot - dipped galvanized prior to vinyl coating. Thickness of vinyl coating shall be 10-14 mills applied by fusion bonding.
  - 1) Terminal and corner posts - shall be 2.375" O.D. round steel pipe with minimum weight of 3.65 pounds per foot.
  - 2) Line (intermediate) posts - shall be 1.900" O.D. round steel pipe with minimum weight of 2.72 pound per foot.
  - 3) Top and bottom rails - shall b 1.660" O.D. steel pipe with minimum weight

of 2.27 pound per foot.

- a) Top Rail: The fence shall have a continuous 1.66" O.D. top rail. The top rail shall pass through openings provided in the line post top. Each length shall be coupled with an outside sleeve, 6" long. The chain link fabric shall be attached to the top rail by means of a 13 (.091") gauge vinyl coated tie wire, double wrapped, at intervals of approximately 24-inches.
- b) Bottom Rail: Bottom rail shall be attached to the posts by means of fittings with bolts and nuts. The chain link fabric shall be attached as specified in Paragraph 2.01.B.3.a.
- 4) Post Caps: Permanently attached caps over exposed tops of posts. Where a top rail is to be installed, provide a cap with a hole suitable for the through passage of the rail.
- 5) Tension Bars, Bands and Fittings: Where pipe posts are used, vinyl coated tension bands shall be used, fastened to posts with vinyl coated bands at intervals not to exceed 15". Attachment bolts for bands shall be 5/16" 1-1/2" galvanized carriage bolts with nuts. Bolts and nuts shall be field painted to match vinyl color. One tension bar shall be provided for each end and gate post and two for each corner and pull post.

C. Concrete shall be mix No.3 conforming to Section 03 30 00 of the Standard Specifications.

#### 4. Infield Mix

- A. Infield mix shall be placed by a contractor with a minimum of 5 years experience installing recreational baseball fields.
- B. Diamond Tex Premium Mix as manufactured by Martin Limestone, Inc. or approved equal. Baseball Diamond mix shall have an organic content of not more than 0.25% by weight as determined by Maryland Standard Method of "Test for Organic Matter in Natural Soils".

#### SIEVE ANALYSIS

#### MINIMUM % PASSING

No. 4	100
No. 8	96
No. 10	91
No. 16	81
No. 30	73
No. 50	66

No. 100	58
No. 200	46

C. Sand, silt and clay shall be determined as defined by AASHTO M146.

<u>MINIMUM</u>		<u>MAXIMUM</u>
Sand	50	65
Silt	25	40
Clay	5	15

- Replace, in kind, existing clay pots (three total) and wire fencing at the traffic triangle located at Gilman Terrace and 33<sup>rd</sup> Street.
- Spring Bulbs: Body of bulbs shall be firm to the touch. Propagules whose shoots and bodies are soft or mushy to the touch, or are dark colored shall be rejected.

Spring Bulbs*		
#	Botanical name	Common Name
20	Lilium sp.	tulips
20	Colchicum sp.	crocuses
40	Narcissus sp.	daffodils
20	Muscari armeniacum	grape hyacinths
*Deliver to the garden area around tree T84 @ the intersection of 33 <sup>rd</sup> St., Remington Ave., and Gilman Terrace upon completion of work and between September 15 and November 15. This material will be installed by others. Coordinate delivery with Baltimore City Department of Recreation and Parks		

- Herbaceous and Woody Plants: All herbaceous and woody plants shall be nursery grown. They shall be typical for their species or variety. They shall be sound, healthy and vigorous, and free of disease and any evidence of insects. If in leaf, they shall be densely foliated, without leaf spots, discoloration, curl, wilting, chlorosis or damage. They shall have healthy, developed root systems.

Supplemental Herbaceous & Woody Plant List (One Quart Containers)*		
#	Botanical name	Common Name
6	Hosta krossa regal	Blue hostas
6	Hosta undulata 'Albo marginata'	Chartreuse hostas
3	Cladanthus arabicus	Palm Spring Daisy
36	Verbascum 'Jackie'	Verbascum
6	Scabiosa 'Butterfly Blue'	Pin Cushion flower
6	Rudbeckia hirta	Black eyed susans
6	Gaillardia grandiflora 'Burgundy'	Blanket flower
6	Clethra 'Ruby Spice'	Sweetpepper Bush
6	Agapanthus X Headborne	Lily of the Nile
6	Asclepias tuberosa	Butterfly flower
6	Hibiscus sp.	Hardy hibiscus
30	Artemesia schmidtiana 'Silver Mound'	Wormwood
30	Liriope muscari variegated	Lily turf
10	Papauler orientale allegro	Poppy - mixed
9	Digitalis purpurea	Foxglove
9	Lupinus polyphyllus	Lupine
3	Lauandula intermedia	Lavender
9	Leucanthemum superbum	Chrysanthemums mixed
6	Mondara didyma 'Mahogany'	Bee Balm
6	Alcea rosea	Hollyhocks
6	Oenothera macrocarda	Evening primrose
3	Eupatorium fistulosum	Joe - Pye weed
12	Iris siberica 'Blue'	Iris - dwarf blue
24	Iris siberica 'Snow Queen'	Iris - tall mixed colors
12	Hemero callis 'stella de oro'	Daylilly
*Deliver to the garden area around tree T84 @ the intersection of 33 <sup>rd</sup> St., Remington Ave., and Gilman Terrace upon completion of work and between April 1 and June 15. This material will be installed by others. Coordinate delivery with Baltimore City Department of Recreation and Parks upon delivery		

### Construction Methods

#### 1. General

- A. The area of the existing baseball fields and specific park areas designated on the Contract Drawings shall be disked in two directions, perpendicular to each other, to incorporate sod before commencing grading operations.

- B. All fine grading and/or disking within the limits of the existing baseball outfield, shall be completed by or under the supervision of a contractor with a minimum of 5 years of experience with installing recreational baseball fields.
2. Baseball Backstop
- A. Chain Link Fence Framing
    - 1) Verify areas to receive fencing are completed to final grades and elevations.
    - 2) Install chain link fence in accordance with ASTM F567 and manufacturers instructions.
    - 3) Concrete set all posts: Drill holes in firm, undisturbed or compacted soil. Holes should have a depth of approximately 6" deeper than post bottom. Excavate deeper as required for adequate support in soft and loose soils, and for posts with heavy lateral loads. Set post in accordance with the Contract Drawings. Place concrete around posts in a continuous pour. Trowel finish around post. Slope to direct water away from posts.
    - 4) Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.
    - 5) Rail: Install single lengths between posts.
  - B. Chain Link Fencing
    - 1) Fabric: Install fabric on field side, and attach so that fabric remains in tension after pulling force is released. Leave approximately 1" (25 mm) between finish grade and bottom selvage. Attach fabric with wire ties or clips to line posts at 15" (380 mm) on center and to rails, braces, and tension wire at 24" (600 mm) on center.
    - 2) Tension (stretcher) bars: Pull fabric taut; thread tension bar through fabric and attach to terminal posts with bands spaced maximum of 15" (380 mm) on center.
    - 3) Tie wires: Bend ends of wire to minimize hazard to persons and clothing.
    - 4) Fasteners: Install nuts on side of fence opposite fabric side for added security.
3. Players Bench

- A. Embed structural bench posts in concrete footings per manufacturer's specifications and Contract Drawings. All footings to frost line. Set top of footings flush with finished surface.
  - B. Set benches level to horizontal not less than eighteen inches (18") above finished grade.
4. Chain Link Fence
- A. The chain link fence and accessories shall be installed in strict accordance with plans and specifications in a workmanlike manner.
  - B. Line posts shall be plumb and spaced at equal intervals but not more than 10' on centers.
  - C. Provide terminal post at each termination and change in horizontal or vertical direction of 30 degrees or more.
  - D. Install bottom rails not less than four inches (4") above the level of finished grade.
  - E. Stretch and attach chain link fence fabric.
  - F. Concrete Footings
    - 1) Drill holes in firm, undisturbed or compacted soil. Excavate deeper, as required, for adequate support in soft and loose soils.
    - 2) Place concrete around posts in a continuous pour. Trowel finish tops of footings and slope or dome to direct water away from posts.
5. Infield Mix/Sod
- A. Excavate skinned area (including pitchers mound) to a depth of four inches (4") below finish grade. Place Diamond Mix and compact to finish grade by rolling or tamping. Maintain positive drainage away from pitchers mound.
6. The Contractor shall not plant any of the herbaceous plants, woody plants or spring bulbs at the traffic triangle located at Gilman Terrace and 33<sup>rd</sup> Street. All plants and bulbs, replacement fencing and clay pots shall be delivered in their original packaging to the location specified by the Baltimore City Department of Recreation and Parks. All plants shall be delivered between April 1 and June 15. Bulbs shall be delivered between September 15 and November 15. The Contractor shall coordinate delivery with Ms. Anne Draddy, Baltimore City Department of Recreation and Parks (410-396-0730)

Method of Measurement



Miscellaneous Park Improvements will not be measured, but will be paid for at the Contract lump sum bid price for Miscellaneous Park Improvements.

*Basis of Payment*

Miscellaneous Park Improvements will be measured and paid for at the Contract lump sum bid price. Payment will include all removal, furnishing and installing existing baseball backstops, player benches and 3-foot tall fencing, infield mix, concrete, disking, clay pots, ornamental fencing, herbaceous and woody plants, spring bulbs and all labor, material, equipment, and all other incidentals necessary to complete the work.

Topsoil to be provided and placed at the traffic triangle located at Gilman Terrace and 33<sup>rd</sup> Street shall be paid for under Item 717. Mulching of the traffic triangle will be paid for under Item 719.

**ITEM 204 – STRIPPING BITUMINOUS SURFACING MATERIAL (Section 02 41 13.13)**

*Description*

Supplement Section 02 41 13.13 Part 1 Item 1.1 with the following:

“This work shall consist of removing the asphalt surface and base course material beyond the utility trench excavation as shown on the Contract Drawings”.

**ITEM 301 – CLASS 3 EXCAVATION FOR INCIDENTAL CONSTRUCTION  
(Section 31 23 16.17 and 31 23 33)**

**ITEM 302 - SELECT BACKFILL USING NO.6 AGGREGATE (Section 31 23 23.13  
and 31 23 33)**

**ITEM 303 –EXCAVATION FOR ROCK OR BOULDERS ONE-HALF CUBIC YARD OR  
MORE (Sections 01 45 34 and 31 23 33)**

*Description*

This item includes the removal of rock during trench excavation. Any material, which, in the opinion of the Engineer, cannot be excavated by any other process other than drilling and blasting or drilling and wedging, shall be considered as rock. Foundations encountered and requiring removal, which were constructed using cement mortar and/or cast-in-place concrete, shall also be classified as rock. Any material, which can be removed by means other than drilling and blasting or drilling and wedging, but which, for any reason, the Contractor prefers to remove by such drilling and blasting or drilling and wedging, shall not be classified as rock.

Rock excavation for tunnel access shafts and bore and jack access shafts will be paid for under the respective bid access shaft item.